

**In the Specification:**

Please amend the specification as shown:

Please delete the paragraph on page 7, line 21 to page 8, line 19 and replace it with the following paragraph:

GnRH is a neuropeptide which stimulates LH and FSH secretion by the pituitary gland. In humans, its amino-acid composition is <Glu<sup>1</sup>-His<sup>2</sup>-Trp<sup>3</sup>-Ser<sup>4</sup>-Tyr<sup>5</sup>-His<sup>6</sup>-Leu<sup>7</sup>-Arg<sup>8</sup>-Pro<sup>9</sup>-Gly<sup>10</sup>-NH<sub>2</sub> (SEQ ID NO: 1). In post-pubertal female, pulsatile release of GnRH by the hypothalamus plays a key role in fertility by inducing the secretion of gonadotropins (FSH and LH) resulting into the menstrual cycle. Conditions associated with GnRH secretion deficiency (WHO group I anovulation: e.g. Kallmann's syndrome and weight-loss related amenorrhea) are therefore characterised by absence of ovulation, absence of spontaneous menstruation (amenorrhea) and infertility. This condition has been successfully treated by administration of synthetic, native GnRH (Shoham Z. *et al.* 1990; Induction of ovulation with pulsatile GnRH. Baillière's Clin Obstet Gynaecol. 4: 589-608). In order to be effective, GnRH administration has to be pulsatile, at a frequency of one pulse every 60 to 90 minutes at the beginning of the follicular phase and approximately one pulse every 2 to 4 hours during luteal phase (Hanker J.P. *et al.*; 1984, Frequency-varied versus unvaried pulsatile LH-RH substitution in hypothalamic amenorrhea). In addition, it is administered intravenously or subcutaneously which imposes to patients to carry a portable pump for several weeks. Beside the burden of carrying this pump, adverse events such as phlebitis, sepsis and abscess at the injection site are not rare (Molloy B.G. *et al.* 1985; Ovulation induction in clomiphene nonresponsive patients: the place of pulsatile gonadotrophin-releasing hormone in clinical practice. Fertil. Steril. 43: 26-33). One study has assessed nasal administration of native GnRH to maintain the luteal phase after inducing follicular development and ovulation by intravenous administration of native GnRH. GnRH was again administered every 4 hours to mimic endogenous GnRH secretory pattern. In half of the patients, this was completely ineffective to support the luteal phase, and efficacy was found to be highly dependent of the follicular phase pulse frequency (Hanker J.P. *et al.*; 1984, Frequency-varied versus unvaried pulsatile LH-RH substitution in hypothalamic amenorrhea. Europ. J. Obstet. Reprod. Biol. 17: 103-119). Frequently administered native GnRH by intravenous and subcutaneous routes has also been attempted in patients with dysfunctional GnRH secretion, but with very low efficacy and similar adverse outcome (Molloy B.G. *et al.* 1985; Ovulation induction in clomiphene nonresponsive patients: the place of pulsatile gonadotrophin-releasing hormone in clinical practice. Fertil. Steril. 43: 26-33).

Please delete the paragraph on page 15, lines 19-31 to page 17, line 5 and replace it

with the following paragraph:

GnRH agonists that can be used according to this invention, are well known and include, but are not limited to buserelin(e) (<Glu<sup>1</sup>-His<sup>2</sup>-Trp<sup>3</sup>-Ser<sup>4</sup>-Tyr<sup>5</sup>-D-Ser(t-But)<sup>6</sup>-Leu<sup>7</sup>-Arg<sup>8</sup>-Pro<sup>9</sup>-EA **(SEQ ID NO: 2)**), leuprorelin(e) (<Glu<sup>1</sup>-His<sup>2</sup>-Trp<sup>3</sup>-Ser<sup>4</sup>-Tyr<sup>5</sup>-D-Leu<sup>6</sup>-Leu<sup>7</sup>-Arg<sup>8</sup>-Pro<sup>9</sup>-EA **(SEQ ID NO: 3)**), triptorelin(e) (<Glu<sup>1</sup>-His<sup>2</sup>-Trp<sup>3</sup>-Ser<sup>4</sup>-Tyr<sup>5</sup>-D-Trp<sup>6</sup>-Leu<sup>7</sup>-Arg<sup>8</sup>-Pro<sup>9</sup>-Gly<sup>10</sup>-NH<sub>2</sub> **(SEQ ID NO: 4)**), goserelin(e) (<Glu<sup>1</sup>-His<sup>2</sup>-Trp<sup>3</sup>-Ser<sup>4</sup>-Tyr<sup>5</sup>-D-Ser(t-But)<sup>6</sup>-Leu<sup>7</sup>-Arg<sup>8</sup>-Pro<sup>9</sup>-AZA-Gly<sup>10</sup>-NH<sub>2</sub> **(SEQ ID NO: 5)**), and nafarelin (<Glu<sup>1</sup>-His<sup>2</sup>-Trp<sup>3</sup>-Ser<sup>4</sup>-Tyr<sup>5</sup>-D-Nal-(2)<sup>6</sup>-Leu<sup>7</sup>-Arg<sup>8</sup>-Pro<sup>9</sup>-Gly<sup>10</sup>-NH<sub>2</sub> **(SEQ ID NO: 6)**), deslorelin(e) and histrelin. Most of these agonists are commercially available whereas the others are known from the literature. Nonpeptide GnRH agonists can also be used such as compounds described, but not limited to, in WO0247722 which is incorporated herein as reference. More specifically, the GnRH agonist will be selected among a group of substances comprising buserelin(e), nafarelin(e), triptorelin(e), leuprorelin(e), goserelin(e), deslorelin(e) and histrelin(e) and analogs thereof with derived structures having essentially a GnRH activity, a combination of two or more of these agonists.